

CTE Standards Unpacking
Auto Body Painting and Refinishing

Course: Auto Body Painting and Refinishing

Course Description: Students will perform basic paint applications and final inspections. Students will comply with personal and environmental safety practices associated with clothing and the use of gloves; respiratory protection; eye protection; hand tools; power equipment; proper ventilation; and the handling, storage, and disposal of chemical/material in accordance with local, state, and federal safety and environmental regulations.

Career Cluster: Transportation, Distribution & Logistics

Prerequisites: Intro to Auto body and Estimating

Program of Study Application: Auto Body Painting and Refinishing is an advanced pathway course in the transportation, distribution and logistics career cluster, automotive body collision and refinishing pathway.

INDICATOR #PFR 1: Auto body students understand painting and refinishing safety precautions.

SUB-INDICATOR 1.1 (Webb Level: 2 Skill/Concept): Demonstrate auto body painting and refinishing safety practices

Knowledge (Factual): -Personal Safety Equipment. -OSHA 10 -EPA regulations	Understand (Conceptual): -Consequences of incorrect use of personal safety equipment	Do (Application): -Identify and locate all safety equipment in the shop. -Simulate use of fire extinguishers. -Demonstrate use of jacks and stands. -Eye wash station demonstration.
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Benchmarks:

Students will be assessed on their ability to:

- Students will complete safety checklist.
- Students will complete OSHA 10 certification
- Create an artifact on “Right to Know” Federal Law
- Students will complete respiratory safety and maintenance checklist

Academic Connections	
ELA Literacy and/or Math Standard (if applicable, Science and/or Social Studies Standard): SL4. Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range or formal and informal tasks	Sample Performance Task Aligned to the Academic Standard(s): Students will participate in a group discussion on respiratory safety

INDICATOR #PFR 2: Students will understand surface preparation procedures.		
SUB-INDICATOR 2.1 (Webb Level: 2 Skill/Concept): Analyze areas for surface preparation		
SUB-INDICATOR 2.2 (Webb Level: 2 Skill/Concept): Prepare automotive surface to be refinished		
Knowledge (Factual): -Surface preparation.	Understand (Conceptual): -Preparation insures a quality finish. (Painting is 95% prep and 5% paint).	Do (Application): -Create a smooth and shiny finish
Benchmarks: <i>Students will be assessed on their ability to:</i> <ul style="list-style-type: none"> • Prepare an automotive panel. • NATEF tasks that apply to sub-indicator. 		

Academic Connections	
ELA Literacy and/or Math Standard (if applicable, Science and/or Social Studies Standard): SL1. Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led)	Sample Performance Task Aligned to the Academic Standard(s): Students will explain proper techniques for surface preparation

G-MG1. Use geometric shapes, their measures, and their properties to describe objects	Students will create a geometric model to estimate amount of material needed for repair
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INDICATOR #PFR 3: Students will understand spray gun and related equipment operation.		
SUB-INDICATOR 3.1 (Webb Level: 2 Skill/Concept): Inspect, prepare and demonstrate usage of spray gun and related equipment		
Knowledge (Factual): -Spray guns, regulators, and spray environment. -Tools and equipment related to auto body repair.	Understand (Conceptual): -To ensure a quality refinish to meet customer expectations.	Do (Application): -Clean and inspect spray gun equipment. -Adjust spray pattern.
Benchmarks: <i>Students will be assessed on their ability to:</i> <ul style="list-style-type: none"> • Operate a spray gun. • NATEF tasks that apply to sub-indicator 		
Academic Connections		
ELA Literacy and/or Math Standard (if applicable, Science and/or Social Studies Standard): W4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience A-CED1 1. Create equations and inequalities in one variable and use them to solve problems.	Sample Performance Task Aligned to the Academic Standard(s): Students will write a paragraph to explain the proper techniques for adjusting the spray pattern Students will create an equation to model how much area you can cover with a spray gun before refilling	

INDICATOR #PFR 4: Students will understand and perform paint mixing, matching, and applying automotive refinishing materials.		
SUB-INDICATOR 4.1 (Webb Level: 1 Recall): Understand the process for mixing and matching automotive paint		
SUB-INDICATOR 4.2 (Webb Level: 2 Skill/Concept): Correctly apply automotive paint to prepared surfaces		
Knowledge (Factual): -Vehicle manufactures color code. -Paint properties. -Mixing procedures and equipment.	Understand (Conceptual): -Repaired panel can match original paint color.	Do (Application): -Mix and match base coat and clear coat. -Apply finish.
Benchmarks: <i>Students will be assessed on their ability to:</i> <ul style="list-style-type: none"> • Apply paint on test panel for color match. • NATEF tasks that apply to sub-indicator 		
Academic Connections		
ELA Literacy and/or Math Standard (if applicable, Science and/or Social Studies Standard): SL1Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led)	Sample Performance Task Aligned to the Academic Standard(s): Students will discuss the methodology for matching paint	

INDICATOR #PFR 5: Students will identify causes and correction procedures for paint defects.		
SUB-INDICATOR 5.1 (Webb Level: 2 Skill/Concept): Identify paint defects, understand the causes, and correct paint defects		
Knowledge (Factual): -Paint defects -Correction procedures -Paint finishes	Understand (Conceptual): -Paint defects such as fish eyes, runs, blistering, and orange peel to name a few will result in an unacceptable finish.	Do (Application): -Identify paint defects and their causes.

Benchmarks: <i>Students will be assessed on their ability to:</i> <ul style="list-style-type: none"> • Match paint defect with test panel. • NATEF tasks that apply to sub-indicator 	
<i>Academic Connections</i>	
ELA Literacy and/or Math Standard (if applicable, Science and/or Social Studies Standard): SL1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led)	Sample Performance Task Aligned to the Academic Standard(s): Students will discuss possible causes of paint defects

INDICATOR #PFR 6: Students will understand and perform detailing of paint refinishing.		
SUB-INDICATOR 6.1 (Webb Level: 2 Skill/Concept): Perform final vehicle inspection		
Knowledge (Factual): -Inspection procedures. -Details of paint finishing.	Understand (Conceptual): -Importance of quality control to insure customer satisfaction.	Do (Application): -Clean body interior and exterior.
Benchmarks: <i>Students will be assessed on their ability to:</i> <ul style="list-style-type: none"> • Complete quality control checklist. • NATEF tasks that apply to sub-indicator 		
<i>Academic Connections</i>		
ELA Literacy and/or Math Standard (if applicable, Science and/or Social Studies Standard): SL1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led)	Sample Performance Task Aligned to the Academic Standard(s): Students will role play technician and customer to solve customer concerns about quality of paint job	

Additional Resources

Please list any resources (e.g., websites, teaching guides, etc.) that would help teachers as they plan to teach these new standards.